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REMARKS

The abstract is amended to include a period at the end. This amendment to the abstract does not add new matter.

The limitations of claim 2 that the solid has a size sufficient to be retained by a 2.5 mm mesh are written into claim 1. This amendment to claim 1 does not add new matter. Claims 10-14 which were directly or indirectly dependent from claim 2 are, accordingly, cancelled.

Claims 8 and 9 are amended to recite methods comprising the step of using the composition of claim 1 in an automatic dishwashing machine and a laundry washing machine, respectively. These amendments to claims 8 and 9 are supported in the specification, at least at page 6, lines 11-15.

At page 2 of the Office Action, the Examiner objects to the abstract of the disclosure because it does not end with a period. The abstract of the disclosure has been amended accordingly.

At page 2 of the Office Action, the Examiner rejects claims 8 and 9 under 35 U.S.C. § 112 (second paragraph) as failing to particularly point out and distinctly claim the subject matter which the applicants regard as the invention. Reconsideration and withdrawal of this rejection is respectfully requested.

The Examiner asserts that claims 8 and 9 provide for the use of the packaged detergent but does not set forth any steps involved in the method/process and further asserts that the claim is indefinite because it merely recites a use without any active, positive steps delimiting how the use is actually practiced. Claims 8 and 9 are amended

to recite methods comprising the step of using the composition of claim 1 in an automatic dishwashing machine and a laundry washing machine, respectively. As such, the claims recite methods with positive steps delimiting the method. Accordingly, claims 8 and 9 as amended comply with the requirements of 35 U.S.C. § 112 (second paragraph).

At page 2 of the Office Action, the Examiner rejects claims 8 and 9 under 35 U.S.C. § 101. Reconsideration and withdrawal of this rejection is respectfully requested.

The Examiner asserts that the claimed recitation of use without setting forth any steps involved in the process results in an improper definition of a process. Claims 8 and 9 are amended to recite methods comprising the step of using the composition of claim 1 in an automatic dishwashing machine and a laundry washing machine, respectively. As such, the claims recite methods with positive steps delimiting the method. Accordingly, claims 8 and 9 as amended comply with the requirements of 35 U.S.C. § 101.

At pages 3-4 of the Office Action, the Examiner rejects claims 1 and 3-14 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,929,380 to Schulz *et al.* ("Schulz"). Reconsideration and withdrawal of this rejection is respectfully requested.

Claim 1 is amended to incorporate the limitations of claim 2 that the solid has a size sufficient to be retained by a 2.5 mm mesh. Claim 2 was not rejected by the Examiner as anticipated by Schulz and, accordingly, the rejection of claim 1, which is amended to incorporate the limitations of claim 2, is moot. Furthermore, Schulz does not disclose the compositions of the present invention comprising at least one liquid and at least one solid substantially insoluble in the liquid having a size sufficient to be retained by a 2.5 mm mesh, and thus does not teach or suggest the packaged detergent

compositions of the present invention or motivate one skilled in the art to arrive at the present invention with any expectation of success. Based on the foregoing, the applicants respectfully request that the rejection of the claims as anticipated by Schulz be withdrawn.

At pages 4-5 of the Office Action, the Examiner rejects claims 1-8 and 10-14 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,492,312 to Pfeiffer, *et al.* ("Pfeiffer"), or in the alternative under 35 U.S.C. § 103(a) as being obvious over Pfeiffer. Reconsideration and withdrawal of these rejections are respectfully requested.

The Examiner asserts that Pfeiffer teaches a water soluble sachet comprising a detergent composition having discrete particle that enhances cleaning in a dishwashing machine wherein the composition is a gel which comprises discrete particles having an approximate diameter from about 100 microns to about 5,000 microns and a viscosity from about 100 cps to about 45,000 cps. The Examiner further argues that the discrete particles may be encapsulated bleach which inherently have a density lower than the density of the composition and that suitable materials for the water soluble sachet include polyvinyl alcohol ("PVOH"). Finally, the examiner argues that the dishwashing composition of Pfeiffer should inherently have a dispersion/dissolution time as recited in the claims considering the same liquid is purportedly utilized. On this basis, the Examiner concludes that Pfeiffer anticipates present invention. The Examination further states that even if Pfeiffer does not anticipate, it would have been obvious for one skilled in the art at the time the invention was made to reasonably expect the discrete particles such as the encapsulated bleach to have a density lower than the density of the

dishwashing composition considering that the particles are discrete and would have dispersed/suspended/floated in the composition.

The present invention concerns a detergent composition in a container that partly disintegrates wherein the detergent composition comprises at least one liquid and a least one solid wherein the solid is insoluble in the liquid and has a density lower than the density of the liquid. The solid has a size such that it is retained by a 2.5mm mesh, as set forth in claim 1 as amended. The invention addresses the problem in the art related to the release of solid from a liquid composition. As mentioned in the specification, in the art, viscous liquid compositions take some time to dissolve and diffuse thus delaying the release of the solid in the formulation. The present invention addresses this issue by having the composition comprise a solid which has a lower density than liquid of the composition. (See, specification at ¶¶ 0006 – 0009.)¹ Hindrance of the release of the solid from the liquid is avoided in the present invention because the solid, having lower density, is floating or easily rising to the outer surface of the viscous liquid composition and much more exposed to the washing liquor and therefore easier to be released into the washing liquor. (See, specification at ¶¶ 0022.) This is shown in the examples in the specification wherein compositions having solids of less density than the liquid have better release time into the aqueous environment. (See, specification at ¶¶ 0106 – 0107.)

Pfeiffer does not expressly address the density of the discrete particle of its composition which is acknowledged by the Examiner. Rather, the Examiner refers to the

¹ Reference to the specification pertains to the paragraph numbers set forth in the publication of the instant application, US 2005/0153861.

disclosure of Pfeiffer regarding encapsulated bleach and asserts that Pfeiffer inherently discloses particles having a density lower than the density of the liquid. The Examiner further asserts that Pfeiffer's composition would inherently have the dispersion/dissolution times as set forth in the claims of the instant application. A claim limitation is inherent in the prior art when it is necessarily present in the prior art disclosure and not merely probably or possibly present. *Akami Technologies, Inc. v. Cable & Wireless Internet Services, Inc.*, 344 F. 3d 1186, 1192, 68 U.S.P.Q. 2d 1186 (Fed. Cir. 2003). The prior art reference must necessarily include the unstated limitation. *Transclean Corp. V. Bridgewood Services, Inc.*, 290 F. 3d 1364, 1373, 62 U.S.P.Q. 2d 1865 (Fed. Cir. 2002). As shall be discussed below in more detail, Pfeiffer does not expressly disclose compositions having at least one solid material in a liquid which has a lower density than the liquid. Moreover, neither the solid of the composition having a density less than the liquid nor the dispersion/dissolution times necessarily follow from the disclosure of Pfeiffer such that Pfeiffer does not inherently disclose the present invention. As such, the present invention is not anticipated by Pfeiffer.

Pfeiffer discloses discrete particulate encapsulated bleach and places particular emphasis on wax coated particles. The wax coating is said be needed to protect the core detergent in the liquid throughout storage of the cleaning composition and provide for quick melting or early softening in an automatic dish wash cycle. (See, Pfeiffer at column 9, lines 17-25.) Accordingly, Pfeiffer does not address the density of the particle, the relationship between the density of the particle and that of the liquid and the importance of the density to the washing properties. Thus, the disclosure of Pfeiffer does

not necessarily provide for a particle having a lower density than the liquid and, on that basis, also does not provide for the dispersion/dissolution times. Moreover, Pfeiffer offers the skilled artisan a bewildering array of particulate components and specifically focuses on coated particles which are selected for protection and early melt or softening in the wash cycle and nowhere is the density mentioned or the importance of the density discussed. Considering the disclosure of Pfeiffer regarding the coated particles, which should affect the overall density of the bleach component in the compositions of Pfeiffer and the function of the coating on the release of the particulate, it cannot be said that Pfeiffer inherently discloses the compositions of the present invention having liquid and at least one substantially insoluble solid with a density lower than the liquid or for that matter that it expressly discloses this aspect of the present invention. Therefore, the present invention is not anticipated by Pfeiffer.

Furthermore, as discussed in the specification for the instant application, the present invention avoids the hindrance of the solid release as experienced in the art because the lower density solids in the compositions of the present invention are floating or easily rising to the outer surface of the liquid. Pfeiffer does not address the density of its particles, specifically the bleach which is encapsulated within a wax coating which is said to be selected in part for release characteristics. One skilled in the art reading Pfeiffer would not find that this reference necessarily discloses a solid having lower density than the liquid, particularly since the particulate of Pfeiffer is wax coated for protection and softening or releasing early in the wash cycle nor on this basis would one skilled in the art find that Pfeiffer necessarily discloses the dispersion/dissolution times of

the present invention. There is simply no discussion in Pfeiffer of the density of the particle and its relationship to the density of the liquid or the importance of the density as was discovered with the present invention and the discussion in Pfeiffer regarding wax coatings would not direct one skilled in the art to place any particular importance to the density of the solid material such that this reference inherently discloses solids necessarily having a density less than the density of the liquid. Again, because the main emphasis of Pfeiffer is a coated particle, the combination of the bleach and a wax coating, the density of the particulate material itself, i.e. the bleach, has no bearing on the invention in Pfeiffer and the disclosure in Pfeiffer of the composite material of the particulate with the wax coating which provides strong evidence against a finding that Pfeiffer inherently discloses compositions having a substantially insoluble solid with a lower density than the liquid. Based on the foregoing, Pfeiffer does not expressly or inherently disclose the present invention and, as such, the present invention is not anticipated by Pfeiffer.

The present invention is also not obvious over Pfeiffer. As discussed above, Pfeiffer does not expressly or inherently disclose the composition having at least one solid having a density lower than that of the liquid, and, accordingly, Pfeiffer also does not teach or suggest the present invention. At no point does Pfeiffer hint or suggest of low density of the particulate component which is a critical feature of the present invention. As discussed in the specification for the instant application, hindrance of the release of the solid from the liquid is avoided in the present invention because the solid, having lower density, is floating or easily rising to the outer surface of the viscous liquid

composition and much more exposed to the washing liquor and therefore easier to be released into the washing liquor. (See, specification at ¶¶ 0022.) Pfeiffer does not teach or suggest that the density of the solid has any effect on release characteristics in the wash liquor and discusses the release of the material only with respect to the wax coating on the particulate. Accordingly, one skilled in the art would not be motivated to modify Pfeiffer to provide for a particulate with lower density than the liquid as in the present invention. Therefore, the present invention is not obvious over Pfeiffer.

Finally, as discussed in the specification, the easier release of the solid is due to the selection of a solid with lower density than the surrounding liquid which was unexpected and is surprisingly distinct from the art. These surprising properties are demonstrated in the examples where a solid having a density 0.4 g/ml less than the solid released in 2 minutes whereas when the solid density was 0.4 g/ml and 1.0 g/ml higher than that of the liquid the release time was 4.5 minutes. (See, Specification at ¶¶ 106-107.) Thus, the present invention has unexpected properties and therefore is not obvious over the prior art, including Schulz or Pfeiffer.

At pages 5-6 of the Office Action, the Examiner provisionally rejects claim 2 under the doctrine of obviousness type double patenting as being unpatentable over claim 2 of co-pending application Ser. No. 10/505,624. The applicants note that the limitations of claim 2 in the instant application have been written into claim 1. Due to the provisional nature of this rejection, it is premature for the applicants to submit a terminal disclaimer. A terminal disclaimer will be submitted if requested by the examiner

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considering the amendments in the instant application and if appropriate after allowance of the claims.

CONCLUSION

The instant application is believed to be in condition for allowance. A Notice of Allowance of Claims 1 and 3-9 is respectfully requested. The Examiner is invited to telephone the undersigned at (908) 722-0700 if it is believed that further discussions, and/or additional amendment would help advance the prosecution of the instant application.

If any extension of time for this response is required, applicant requests that this be considered a petition therefor. Please charge any required petition fee to the Deposit Account No. 14-1263.

Please charge any insufficiency of fees, or credit any excess, to the Deposit Account No. 14-1263.

Respectfully submitted,



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